

Date: Monday, 1/30/2006 8:05:36 AM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: WEARPLATE
Job Number	: 25643		
Estimate Number	: 10621		
P.O. Number	: N/A	Part Number	: D34603
This Issue	: 1/30/2006 S.O. No. : N/A	Drawing Number	: D3460 REV. A
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: N/A Type : PURCHASED PARTS	Drawing Revision	: A
Previous Run	: 24520	Material	: N/A
Written By	: <u>SEE COMMENT BELOW</u>	Due Date	: 2/8/2006 Qty: 20 Um: Each
Checked & Approved By	: <u>JA 06.01.30</u>		
Comment	: Est: A 05.10.20 New Issue KJ/EC		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	PG	PURCHASING
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Comment: PURCHASING

Issue P/O: 00000465

Email or Ship DXF file to vendor

Laser Cut D2577-101 flat pattern as per Dwg D2577

Material release note required

SP
06/01/30

2.0	D2577101F	Wearplate (flat pattern)
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Comment: Qty.: 1.0000 Each(s)/Unit Total : 20.0000 Each(s)
 WEARPLATE

3.0	PACKAGING 1	PACKAGING RESOURCE #1
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Comment: PACKAGING RESOURCE #1

Recieve & Inspect for Transit Damage

Ensure Material Release Note is attached

CY 06/02/22

(20)

4.0	QC6	DIMENSIONAL CHECK
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Comment: DIMENSIONAL CHECK

Inspect dimensions as per inspection template D2577-101T

06/02-25

5.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
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Comment: SMALL & MEDIUM FAB RESOURCE 1

Deburr if necessary

N/A *SB 06/03/0*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 1/30/2006 8:05:36 AM
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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WEARPLATE

Job Number: 25643

Part Number: D34603

Job Number:



Seq. #: Machine Or Operation: Description :

6.0 BRAKE NC NC BRAKE



Comment: NC BRAKE

- 1- Form on brake using DT8155 and DT8179 as per Dwg D2577 Rev: A
 - 2- ~~Form and joggle using DT8157 as per Dwg D2577~~ N/A
 - 3- Form Detail "A" joggle using DT8157 as per Dwg D3460 Rev: A
- Identify as D3460-3

SB 06/03/01

PTO

21

7.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

06-03-01

21

8.0 LARGE FAB 1 LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

- Weld hard surface using DT8308A & DT8308B as per Dwg D3460 Rev: A
- Qty Part Number Description Batch
- A/R N/A 7560 Hardcoat Rod M19682

CPL 06-03-09

9.0 QC9 VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

06/03/09

(21)

10.0 POWDER COATING POWDER COATING



Comment: POWDER COATING

- Powder Coat Grey Sandtex (Ref: 4.3.5.6) as per QSI 005 4.3

9. m 06-03-10

11.0 QC3 INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT

06 03 13

(21)

12.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

- Identify and Stock
- Location: F.P.

06 03 13

(21)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
06-03-01	6	No end joggle on - 3. remove.	EC	06-03-01		EC pa QS/042	060301

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: 27 Date: 06/03/13
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 1/30/2006 8:05:36 AM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WEARPLATE

Job Number: 25643

Part Number: D34603

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

SP 06/03/13 (20)

Job Completion



u 06-03-13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

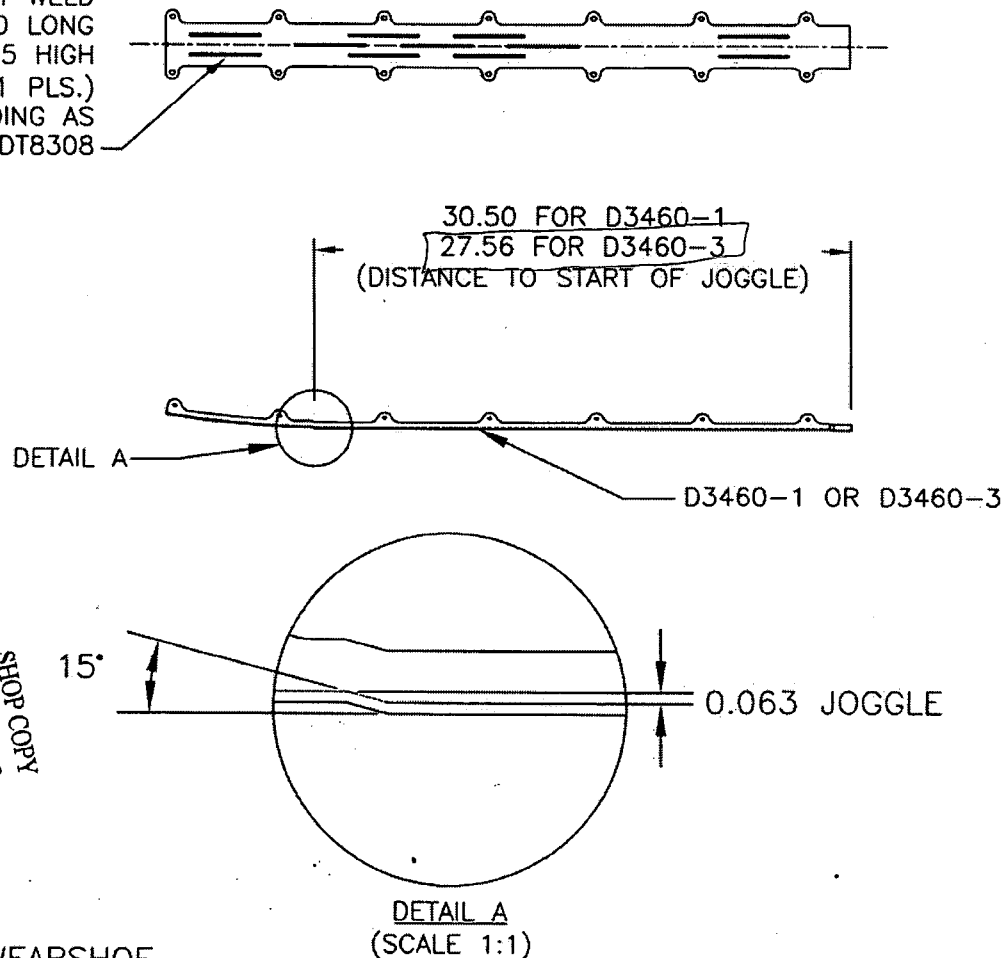
DART

RELEASED

05.11.14

DESIGN	PH	DRAWN BY	PH	DART AEROSPACE USA, INC.
CHECKED	<i>[Signature]</i>	APPROVED	<i>[Signature]</i>	PORT HADLOCK, WA
DATE	05.10.04	DRAWING NO.	D3460	REV. A
		TITLE	WEARSHOE	SHEET 1 OF 1
A		05.10.04	NEW ISSUE	SCALE 1:10

7560 HARDCOAT WELD
4.0 LONG
0.063 TO 0.125 HIGH
(TYP. 11 PLS.)
WELD AFTER BENDING AS
ILLUSTRATED PER DT8308



D3460-1/-3 WEARSHOE

- 1) MAKE D3460-1 FROM D2577-11 LONGITUDINAL BEND
- 2) MAKE D3460-3 FROM D2577-13 LONGITUDINAL BEND
- 3) WELD PER DART QSI 004
- 4) FINISH: POWDER COAT GREY (4.3.5.6) PER DART QSI 005 4.3
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 25043



New Zealand Steel Limited
Glenbrook, South Auckland
Postal: Private Bag 92121, Auckland, New Zealand
Telephones: (09) 375 8999 / 375 8111 Auckland
(09) 235 8089 / 235 3535 Waiuku
Fax: (09) 375 8959

TEST CERTIFICATE

Ref: 5597/24541

CUSTOMER	Wilkinson	SPECIFICATION	ASTMA1008 CS Type A	CERTIFICATE No	TC120140
CUSTOMER O/N	90-21N-830	PRODUCT	CRA WIDE COIL	PAGE	1 of 1
MILL O/N	497550	DIMENSIONS	0.044" x 48" x Coil	DATE	17 October 2005

PACK NUMBER		HEAT No	CHEMICAL COMPOSITION PERCENT															MECHANICAL TESTS (TEST SPECIFICATION - ASTM A370)							
			C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	Al	B	N2	CE ()	BEND	YIELD	T.S.	%ELONG	HARDNESS	r	LENGTH
			x100			x1000												x10000		x100		180°			G.L.=
R9-467017-00	644043	5	TR	20	14	17	12	17	29	1	8	1	1					Good				52		1965	
R9-467018-00	644043	5	TR	20	14	17	12	17	29	1	8	1	1					Good				52		1939	
R9-467896-00	644286	5	TR	20	12	16	12	17	24	5	5	1	1					Good				49		2031	
R9-467897-00	644286	5	TR	20	12	16	12	17	24	5	5	1	1					Good				49		1932	
R9-467898-00	644286	5	TR	20	12	16	12	17	24	5	5	1	1					Good				50		2031	
R9-467899-00	644286	5	TR	20	12	16	12	17	24	5	5	1	1					Good				50		1808	
R9-468376-00	644291	5	TR	18	8	20	14	16	18	1	5	1	1					Good				45		1978	
R9-468377-00	644291	5	TR	18	8	20	14	16	18	1	5	1	1					Good				45		1955	

P/O 465

06-02-25

YIELD	GAUGE LENGTH (G.L.)	PLASTIC STRAIN RATIO (r)	IMPACT TEST	(C)=5mm x 5mm	CARBON EQUIVALENT VALUE (CE)
(A)=0.2% PROOF STRESS	(A)=200mm (C)=80mm (E)=2"	(A)=r0 (C)=r45	(A)=10mm x 10mm	(D)=2.5mm x 10mm	(A)=C+Mn/6
(B)=LOWER YIELD STRESS	(B)=50mm (D)=5.65 * So (F)=8"	(B)=r90 (D)=(r0+r90+2r45) / 4	(B)=7.5mm x 10mm	(E)=5mm x 10mm	(B)=C+Mn/6+(Cr+V+Mo)/5+(Cu+Ni)/15
					(C)=C+Mn/6+Si/24 (D)=

WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND INSPECTED WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION

APPROVED *Satish Misra*
QC METALLURGIST



New Zealand Steel Limited
 Glenbrook, South Auckland
 Postal: Private Bag 92121, Auckland, New Zealand
 Telephones: (09) 375 8999 / 375 8111 Auckland
 (09) 235 8089 / 235 3535 Waiuku
 Fax: (09) 375 8999

TEST CERTIFICATE

Ref: 5748/25194

Reissued 1/12/2005

CUSTOMER		Wukinson										P50916D1001										SPECIFICATION		ASTMA1008 CS Type A										CERTIFICATE No		TC122435									
CUSTOMER O/N		99-21N-963										PRODUCT		CRA WIDE COIL										PAGE		1 of 1																			
MILL O/N		507683										DIMENSIONS		9.114" x 48" x Coil										DATE		29 November 2005																			
PACK NUMBER	HEAT No	CHEMICAL COMPOSITION PERCENT																MECHANICAL TESTS (TEST SPECIFICATION - ASTMA370)																											
		C	Si	Mn	P	S	Cu	Ni	Cr	Mo	V	Nb	Ti	Al	B	N2	CE ()	BEND	YIELD	T.S.	%ELONG	HARDNESS	r	LENGTH																					
		x100			x1000										x10000		x100	180°				G.L.=	HRB	()	(feet)																				
R9-471775-00	644609	4	TR	20	8	11	11	17	23	1	6	1	1					Good				51		794																					
R9-471776-00	644609	4	TR	20	8	11	11	17	23	1	6	1	1					Good				51		682																					
R9-471777-00	644609	4	TR	20	8	11	11	17	23	1	6	1	1					Good				54		768																					
R9-471778-00	644609	4	TR	20	8	11	11	17	23	1	6	1	1					Good				54		640																					

YIELD (A)=0.2% PROOF STRESS (B)=LOWER YIELD STRESS	GAUGE LENGTH (G.L.) (A)=200mm (C)=80mm (E)=2" (B)=50mm (D)=5.65 (F)=8"	PLASTIC STRAIN RATIO (r) (A)=r0 (C)=r45 (B)=r90 (D)=(r0+r90+2r45)/4	IMPACT TEST (A)=10mm x 10mm (B)=7.5mm x 10mm (C)=5mm x 5mm (D)=2.5mm x 10mm (E)=5mm x 10mm	CARBON EQUIVALENT VALUE (CE) (A)=C+Mn/6 (B)=C+Mn/6+(Cr+V+Mo)/5+(Cu+Ni)/15 (C)=C+Mn/6+Si/24 (D)=
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WE HEREBY CERTIFY THAT THE MATERIAL DESCRIBED HEREIN HAS BEEN TESTED AND INSPECTED
 WITH SATISFACTORY RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE SPECIFICATION

APPROVED *Satish Misra*
 QC METALLURGIST

P50916DI001 INDUSTRIAL (P50916DI001) (9)